Amendments to the claims:

1 through 9 (previously cancelled)

10. (currently amended) A purified ~~mannanase A~~ ManA polypeptide having a sequence of SEQ ID NO: 1.

11. (previously amended) The purified ~~mannanase A~~ ManA polypeptide of claim 10 further defined as having its encoding nucleotide sequence the same as SEQ ID NO: 2.

12. (previously cancelled)

13-25. (previously cancelled)

26. (previously amended) An isolated polypeptide molecule capable of degrading mannose comprising:

a) a sequence of SEQ ID NO: 3; SEQ ID NO: 4 and SEQ ID NO: 5 in that order, or,

b) a sequence of SEQ ID NO: 1; or

c) an amino acid sequence having at least 70% sequence identity with the amino acid sequence of a) or b).

27. (previously amended) The polypeptide molecule of claim 26, having at least 90% sequence identity with the amino acid sequence of a) or b).

28. (original) A fusion protein comprising the polypeptide of claim 26 and a heterologous peptide.

29. (original) The fusion protein of claim 28, wherein the heterologous peptide is a substrate targeting moiety.

30. (original) The fusion protein of claim 29, wherein the heterologous peptide is a peptide tag.

31. (previously amended) The fusion protein of claim 29, wherein the peptide tag is 6-His, thioredoxin, hemaglutinin, gene specific tag, or OmpA signal sequence tag.

32. (original) The fusion protein of claim 29, wherein the heterologous peptide is an agent that promotes polypeptide oligomerization.

33. (original) The fusion protein of claim 32, wherein the agent is a leucine zipper.

34. (previously amended) A mannanase-substrate complex comprising a fusion protein of claim 28 bound to hemicellulose.

35-42. (previously cancelled)

43. (previously amended) A composition comprising a carrier and a fusion protein of claim 28.

44. (original) A composition comprising the polypeptide molecule of claim 26 and a carrier.

45-62. (previously cancelled)

63. (previously amended) A method for reducing hemicellulose in a starting material, the method comprising:

administering to the starting material an effective amount of a polypeptide molecule of claim 26 or a fusion protein of claim 28.

64. (New) A composition comprising a purified mannanase A peptide, the mannanase peptide comprising a catalytic domain glycoside hydrolase family 5 (GH5), a carbohydrate binding domain III, and a carbohydrate binding domain II in that order.

65. (New) The composition of claim 64 wherein the mannanase A- peptide comprises linker sequences connecting the catalytic domain GH5, the carbohydrate binding domain III, and the carbohydrate binding domain II; and a signal peptide.

66. (New) The composition of claim 64 wherein the catalytic domain GH5 of the mannanase A peptide is further defined as having a length of about 370 to about 380 amino acids.

67. (New) The composition of claim 64, wherein the carbohydrate binding domain III of the mannanase A peptide is further defined as having a length of about 140 to about 160 amino acids.

68. (New) The composition of claim 64 or 65, wherein the carbohydrate binding domain II of the mannanase A peptide is further defined as having a length of about 90 amino acids to about 110 amino acids in length.

69. (New) The composition of claim 66 wherein the GH5 catalytic domain is further defined as the sequence of SEQ ID NO: 3.

70. (New) The composition of claim ~~64~~ wherein the carbohydrate binding domain III is further defined as the sequence of SEQ ID NO: 4.

71. (New) The composition of claim 64 wherein the carbohydrate binding domain II is further defined as the sequence of SEQ ID NO: 5.

72. (New) The composition of claim 64 further defined as comprising a sequence of SEQ ID NO. 3, wherein the carbohydrate binding domain III has a sequence of SEQ ID NO: 4, and the carbohydrate binding domain II has a sequence of SEQ ID NO: 5.

73. (New) An industrial detergent mixture suitable for degrading hemicellulose, such mixture comprising the mannanase A of claim 64.